

AMENDMENTS TO THE CLAIMS

(IN FORMAT COMPLIANT WITH THE REVISED 37 CFR 1.121)

Please add claims 25-28.

1. (CURRENTLY AMENDED) A system comprising:

a formatter configured to format a plurality of data frames ~~of~~ received in a transport stream by inserting a plurality of synchronization data into said data frames to produce a block stream;

an error correction encoder configured to encode said block stream to produce an error protected block stream;

an interleave module configured to interleave said error protected block stream to produce a data stream;

an inserter configured to insert a synchronization signal into said data stream; and

a turbo encoder configured to encode said data stream to produce an encoded stream.

2. (ORIGINAL) The system according to claim 1, wherein said transport stream defines two high definition television programs substantially simultaneously.

3. (ORIGINAL) The system according to claim 1, wherein said turbo encoder comprises:

a first systematic encoder configured to encode said data stream to produce a first redundant stream;

5 a bit interleave module configured to interleave said data stream to produce a second data stream; and

a second systematic encoder configured to encode said second data stream to produce a second redundant stream.

4. (ORIGINAL) The system according to claim 3, wherein said turbo encoder further comprises:

a puncture module configured to puncture bits from said first redundant stream and said second redundant stream to produce  
5 a redundant portion of said encoded stream.

5. (CANCELED)

6. (CURRENTLY AMENDED) A method for transmitting comprising the steps of:

(A) formatting a plurality of data frames ~~of~~ received in a transport stream by inserting a plurality of synchronization data  
5 into said data frames to produce a block stream;

(B) error correction encoding said block stream to produce an error protected block stream;

(C) interleaving said error protected block stream to produce a data stream;

10 (D) inserting a synchronization signal into said data stream; and

(E) turbo encoding said data stream to produce an encoded stream.

7. (ORIGINAL) The method according to claim 6, wherein said transport stream defines two high definition television programs substantially simultaneously.

8. (ORIGINAL) The method according to claim 6, further comprising the steps of:

encoding said data stream to produce a first redundant stream;

5 interleaving said data stream to produce a second data stream; and

encoding said second data stream to produce a second redundant stream.

9. (ORIGINAL) The method according to claim 8, further comprising the step of:

puncturing bits from said first redundant stream and said second redundant stream to produce a redundant portion of said encoded stream.

10. (CANCELED)

11. (PREVIOUSLY PRESENTED) A system comprising:

a converter configured to convert a symbol stream comprising a plurality of symbols into an encoded stream;

a turbo decoder configured to decode said encoded stream to produce a data stream; and

a synchronization remover configured to remove a synchronization signal from said data stream.

12. (PREVIOUSLY PRESENTED) The system according to claim 11, wherein said symbol stream defines two high definition television programs substantially simultaneously.

13. (ORIGINAL) The system of claim 11, wherein said turbo decoder comprises:

a plurality of decode modules configured to decode said encoded stream to produce said data stream.

14. (ORIGINAL) The system according to claim 13, wherein said turbo decoder further comprises:

a de-puncture module configured to de-puncture a redundant portion of said encoded stream.

15. (CANCELED)

16. (PREVIOUSLY PRESENTED) A method for receiving comprising the steps of:

(A) converting a symbol stream comprising a plurality of symbols into an encoded stream;

5 (B) turbo decoding said encoded stream to produce a data stream; and

(C) removing a synchronization signal from said data stream.

17. (PREVIOUSLY PRESENTED) The method according to claim 16, wherein said symbol stream defines two high definition television programs substantially simultaneously.

18. (PREVIOUSLY PRESENTED) The method according to claim 16, wherein step (B) further comprises the sub-step of:

decoding said encoded stream in a plurality of modules to produce said data stream.

19. (ORIGINAL) The method according to claim 18, further comprising the step of;

de-puncturing a redundant portion of said encoded stream.

20. (CANCELED)

21. (PREVIOUSLY PRESENTED) The system according to claim 1, further comprising:

a bit-to-symbol mapper configured to map said encoded stream to produce a symbol stream carrying a plurality of symbols each consisting of two error protected bits and one redundant bit.

22. (PREVIOUSLY PRESENTED) The method according to claim 6, wherein said turbo encoding has a bit error rate not greater than 2 errors per 10,000 bits.

23. (PREVIOUSLY PRESENTED) The system according to claim 11, further comprising:

a demodulator configured to demodulate a signal to produce said symbol stream wherein each of said symbols consists of two error protected bits and one redundant bit.

24. (PREVIOUSLY PRESENTED) The method according to claim 16, wherein said turbo decoding has a bit error rate not greater than 3 errors per 100,000 bits.

25. (NEW) The system according to claim 11, further comprising:

a de-interleave module configured to arrange said data stream into an error protected block stream; and

5 an error correction decoder configured to decode said error protected block stream to produce a block stream.

26. (NEW) The system according to claim 25, further comprising:

a formatter configured to remove a plurality of synchronization data from a plurality of data frames within said

5 block stream to produce a transport stream.

27. (NEW) The method according to claim 16, further comprising the steps of:

arranging said data stream into an error protected block stream; and

5 decoding said error protected block stream to produce a block stream.

28 (NEW) The method according to claim 27, further comprising the step of:

removing a plurality of synchronization data from a plurality of data frames within said block stream to produce a  
5 transport stream.